



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/082,382

02/26/2002

Daniel White Sexton

120840

4580

6147

7590

12/14/2005

GENERAL ELECTRIC COMPANY
GLOBAL RESEARCH
PATENT DOCKET RM. BLDG. K1-4A59
NISKAYUNA, NY 12309

EXAMINER

TRAN, THIEN D

ART UNIT

PAPER NUMBER

2665

DATE MAILED: 12/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/082,382	Applicant(s) SEXTON ET AL.	
	Examiner Thien D. Tran	Art Unit 2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>02/26/2002</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-22 are rejected under 35 U.S.C. 102(e) as being participated by
Sivaprakasam (US Patent No. 6785513).

Regarding claims 1, 15, 16, 18, Sivaprakasam discloses a method for communicating a message over a radio frequency (RF) communications network having a plurality of RF channels, the method comprising the steps of:

partitioning the message into a plurality of blocks having a predetermined order;
converting the plurality of blocks into a plurality of packets (modulating data into packets for transmitting, figure 3, col.5 lines 50-55);

selecting a subset of the plurality of packets (col.5 lines 50-55);

transmitting the selected subset of the plurality of packets over at least one of the plurality of RF channels of the RF communications network (plurality of carriers or sub-bands, col.5 lines 50-55);

receiving the selected subset of the plurality of packets transmitted over the at least one of the plurality of RF channels (col.14 lines 35-50);

estimating a quality of the at least one of the plurality of RF channels from at least the received selected subset of the plurality of packets (col.22 lines 5-10); and

constructing an estimate of the message using at least the received selected subset of the plurality of packets and the estimated quality of the at least one of the plurality of RF channels (col.12 lines 15-25).

Regarding claim 2, Sivaprakasam discloses that each of the plurality of packets comprises at least a block number field, a block field and an error control field (col.14 lines 55-67).

Regarding claim 3, Sivaprakasam discloses that the error control field comprises a cyclic redundancy code (col.14 lines 55-67).

Regarding claim 4, Sivaprakasam that the error control field comprises forward error correction coding information (col.14 lines 55-67).

Regarding claims 5, 19, Sivaprakasam discloses that the subset of the plurality of packets comprises selecting the subset of the plurality of packets having a predetermined probability of error-free reception (col.15 lines 55-65).

Regarding claim 6, Sivaprakasam discloses that the selected subset of the plurality of packets uses orthogonal frequency division multiplexing (OFDM) communication techniques (col.16 line 35).

Regarding claim 7, Sivaprakasam discloses that the selected subset of the plurality of packets transmits the selected subset of the plurality of packets using

Art Unit: 2665

communication techniques selected from the groups consisting of Bluetooth communications techniques and IEEE standard 802.11 communications techniques (col.4 lines 25-30).

Regarding claims 8, 14, Sivaprakasam discloses the steps of:

detecting a presence of jamming pulses in at least one of the plurality of RF channels (estimates noise signals, col.12 lines 15-20) ;

determining characteristics of the jamming pulses in the at least one of the plurality of RF channels wherein the determined characteristics define at least interstices between the jamming pulses (estimating the level of interference, col.7 lines 40-45); and

transmitting the selected subset of the plurality of packets over the at least one of the plurality of RF channels wherein the selected subset of the plurality of packets is transmitted within the interstices of the jamming pulse determined from the step of determining characteristics of the jamming pulses.(col.14 lines 35-40).

Regarding claims 9, 20, Sivaprakasam discloses that characteristics comprise at least jamming pulse duration and jamming pulse repetition time (figure 16).

Regarding claims 10, 11, 17, Sivaprakasam discloses that comprises processing the received selected subset of the plurality of packets to yield the plurality of blocks of the message (modulating data into packets for transmitting, figure 3, col.5 lines 50-55).

Regarding claims 12, 21, Sivaprakasam discloses that the selected subset of the plurality of packets uses Bluetooth communications techniques (col.4 lines 25-30).

Regarding claims 13, 22, Sivaprakasam discloses that the step of transmitting the selected subset of the plurality of packets uses IEEE standard 802.11 communication techniques (col.4 lines 25-30).

Conclusion

3. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Thien Tran whose telephone number is (571) 272-3156. The examiner can normally be reached on Monday-Friday from 8:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (571) 272-3155. Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

5. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197.

Patent Examiner

Thien Tran

DUCHO
PRIMARY EXAMINER

Ducho
12-6-05